AMENDMENTS TO THE CLAIMS

1. (original) An arrangement adapted for optical communication between first and second nodes, the optical communication arrangement comprising:

a first optical switch having first-switch transmit and receive channels and a second optical switch having second-switch transmit and receive channels, at least one of the first and second optical switches adapted to conduct a self-test and indicate whether the self-test has failed;

an optical coupler adapted to receive the first-switch and second-switch transmit channels and to provide an output for transmit to at least one of the first and second nodes;

an optical splitter adapted to receive an optical signal coupled from at least one of the first and second nodes and to provide an output coupled to the first-switch and second-switch receive channels; and

a control circuit configured and arranged to activate one of the first and second optical switches in response to the other of the first and second optical switches conducting the self-test.

2. (original) The arrangement of claim 1, wherein the control circuit includes a first controller of the first optical switch and a second controller of the second optical switch.

3. (original) The arrangement of claim 2, wherein each of the first and second controllers is configured and arranged to bi-directionally communicate with the other of the first and second controllers and to establish only one of the first and second controllers being active.

4. (original) The arrangement of claim 3, wherein the first optical switch includes the first controller and the second optical switch includes the second controller.

5. (original) The arrangement of claim 2, wherein the second controller is adapted to activate the second optical switch upon receiving a signal from the first controller that the first optical switch is in a failure mode.

6. (original) The arrangement of claim 2, wherein said one of the first and second optical switches activates in response to neither of the first and second optical switches indicating that the self-test has failed.

7. (original) The arrangement of claim 1, wherein the control circuit is further configured and arranged to activate one of the first and second optical switches in response to the other of the first and second optical switches indicating that the self-test has failed.

8. (original) An arrangement adapted for optical communication with a first node comprising:

a first optical switch having first-switch transmit and receive channels and a second optical switch having second-switch transmit and receive channels, at least one of the first and second optical switches adapted to conduct a self-test and indicate whether the self-test has failed;

an optical coupler adapted to receive the first-switch and second-switch transmit channels and to provide an output for transmit to the first node;

an optical splitter adapted to receive an optical signal coupled from the first node and to provide an output coupled to the first-switch and second-switch receive channels; and

a control circuit configured and arranged to activate one of the first and second optical switches in response to the other of the first and second optical switches conducting the self-test.

9. (original) The arrangement of claim 8, further comprising:

a second optical coupler adapted to receive the first-switch and second-switch transmit channels and to provide an output for transmit to a second node; and

a second optical splitter adapted to receive an optical signal coupled from the second node and to provide an output coupled to the first-switch and second-switch receive channels.

10. (original) The arrangement of claim 9, wherein the control circuit is further configured and arranged to activate one of the first and second optical switches in response to the other of the first and second optical switches indicating that the self-test has failed.

11. (original) The arrangement of claim 9, wherein said one of the first and second optical switches activates in response to neither of the first and second optical switches indicating that the self-test has failed.

12. (original) The arrangement of claim 9, wherein the control circuit includes a first controller of the first optical switch and a second controller of the second optical switch.

13. (original) An arrangement adapted for optical communication between first and second nodes, the optical communication arrangement comprising:

first optical communication means having first-switch transmit and receive channels and second optical communication means having second-switch transmit and receive channels, each of the transmit and receive communication means for respectively sending and receiving optical signals and at least one of the first and second optical communication means for conducting a self-test and indicating whether the self-test has failed;

optical coupling means for receiving the first-switch and second-switch transmit channels and for providing an output to transmit to at least one of the first and second nodes;

optical splitting means for receiving an optical signal coupled from at least one of the first and second nodes and for providing an output coupled to the first-switch and second-switch receive channels; and

control means for activating one of the first and second optical communication means in response to the other of the first and second optical communication means conducting the self-test.

14. (original) The arrangement of claim 13, wherein the control means includes means for activating one of the first and second optical communication means in response to a pre-programmed default mode for said one of the first and second optical communication means and in response to neither of the first and second optical communication means indicating that the self-test has failed.

15. (original) The arrangement of claim 13, wherein the output of said optical coupling means transmits to the first node and said optical splitting means receives an optical signal coupled from the first node.

16. (original) The arrangement of claim 15, further comprising:

second optical coupling means for receiving the first-switch and second-switch transmit channels and for providing an output for transmit to a second node; and

a second optical splitting means for receiving an optical signal coupled from the second node and for providing an output coupled to the first-switch and second-switch receive channels.

17. (currently amended) In an arrangement for optical communication between ~~first and second~~ nodes, a first node comprising:

a first optical switch having first-switch transmit and receive channels and a second optical switch having second-switch transmit and receive channels, at least one of the first and second optical switches adapted to conduct a self-test and indicate whether the self-test has failed;

an optical coupler adapted to receive the first-switch and second-switch transmit channels and to provide an output for transmit to the first node from a second node;

an optical splitter adapted to receive an optical signal coupled from the first node and to provide an output coupled to the first-switch and second-switch receive channels for the second node; and

a control circuit configured and arranged to activate one of the first and second optical switches in response to the other of the first and second optical switches conducting the self-test.

18. (currently amended) In an arrangement for optical communication between ~~first and second~~ nodes, a first node comprising:

first optical communication means having first-switch transmit and receive channels and second optical communication means having second-switch transmit and receive channels, each of the transmit and receive communication means for respectively sending and receiving optical signals and at least one of the first and second optical communication means for conducting a self-test and indicating whether the self-test has failed;

optical coupling means for receiving the first-switch and second-switch transmit channels and for providing an output to transmit to the first node from the second node;

optical splitting means for receiving an optical signal coupled from the first node and for providing an output coupled to the first-switch and second-switch receive channels for the second node; and

control means for activating one of the first and second optical communication means in response to the other of the first and second optical communication means conducting the self-test.

19. (original) In the arrangement of claim 18, wherein the control means includes means for activating one of the first and second optical communication means in response to a pre-programmed default mode for said one of the first and second optical communication means.

20. (original) In the arrangement of claim 19, wherein the control means includes means for activating one of the first and second optical communication means in response to neither of the first and second optical communication means indicating that the self-test has failed.

21. (new) An optical switch arrangement, comprising:

a first optical switch having a plurality of first-switch transmit channels and a plurality of first-switch receive channels, and a second optical switch having a plurality of second-switch transmit channels and a plurality of second-switch receive channels, each of the first and second optical switches adapted to perform a self-test and output a respective self-test-result signal that indicates success or failure of the respective self-test;

a plurality of optical couplers, each optical coupler coupled to a respective first-switch transmit channel and a respective second-switch transmit channel and adapted to provide an optical output signal;

a plurality of optical splitters, each optical splitter coupled to a respective first-switch receive channel and a respective second-switch receive channel and adapted to split an input optical signal and provide an output optical signal to the respective first-switch receive channel and second-switch receive channel; and

a control circuit coupled to the first and second optical switches, the control circuit adapted activate one and deactivate the other of the first and second optical switches in response to states of the self-test-result signals.

22. (new) The optical switch arrangement of claim 21, wherein the control circuit includes a first subcircuit coupled to the first optical switch and a second subcircuit coupled to the second optical switch and coupled to the first subcircuit, and the first subcircuit provides a first self-test-result signal to the second subcircuit, and the second subcircuit provides a second self-test result signal to the first subcircuit.

23. (new) The optical switch arrangement of claim 22, wherein the first subcircuit activates the first optical switch and the second subcircuit deactivates the second optical switch in response to the first self-test-result signal indicating a successful self-test.

24. (new) The optical switch arrangement of claim 23, wherein the second subcircuit activates the second optical switch and the first subcircuit deactivates the first optical switch in response to the second self-test-result signal indicating a successful self-test and the first self-test-result signal indicating a failed self-test.